WHAT IS CLAIMED IS:

1. A scanning optical apparatus in which at least one beam emitted from light source means is deflected by deflecting means, the beam deflected by said deflecting means is caused to be imaged on a surface to be scanned by imaging means having a diffracting surface on at least one surface thereof to be scanned on said surface to be scanned, wherein of diffracted lights diffracted by said diffracting surface, relative to the diffracted light of an order used to form a spot on said surface to be scanned, the expanse of the stray light of one of unnecessary diffracted lights of the other orders undergoing surface-reflection by a refracting surface of said imaging means upon incidence on said surface to be scanned is designed to be wider in the sub-scanning direction than in the main scanning direction.

2. A scanning optical apparatus according to Claim 1, wherein the stray light of said unnecessary diffracted light is once condensed between said diffracting surface and said surface to be scanned in the sub-scanning cross section.

3. A scanning optical apparatus according to Claim 2, wherein said imaging means is provided with a diffracting optical element having the refracting

surface on the incidence surface thereof and having the diffracting surface on the exit surface thereof, and the power of said refracting surface in the sub-scanning direction is positive.

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4. A scanning optical apparatus according to Claim 1, wherein the stray light of said unnecessary diffracted light is limited by a member disposed in the optical path between said diffracting surface and

10 said surface to be scanned.

5. A scanning optical apparatus according to Claim 1, wherein the expanse of the stray light of said unnecessary diffracted light satisfies the

15 condition that

$$\Phi s/\Phi m > Lo/Lm,$$

(where Φs: the expanse of the stray light of the unnecessary diffracted light on the surface to be scanned in the sub-scanning

20 direction;

Φm: the expanse of the stray light of the unnecessary diffracted light on the surface to be scanned in the main scanning direction;

Lm: the scanning width of the stray light of the

25 unnecessary diffracted light;

Lo: the effecting scanning width.)

6. A scanning optical apparatus according to Claim 1, wherein when said order used is defined as n and said other orders are defined as m, the condition that

$$4 \leq m/n \leq 7$$

is satisfied.

7. A scanning optical apparatus according to Claim 1, wherein the diffracted light of said order used is a transmitted diffracted light of the first order, and said unnecessary diffracted light is a reflected diffracted light of the sixth order.

8. An image forming apparatus comprising:

a scanning optical apparatus according to any one of Claims 1 to 7;

a photosensitive member disposed on said surface to be scanned;

a developing device for developing an electrostatic latent image formed on said photosensitive member by a beam scanned by said scanning optical apparatus as a toner image;

a transferring device for transferring the developed toner image to a transferring material; and

a fixing device for fixing the transferred toner image on the transferring material.

9. An image forming apparatus comprising:

a scanning optical apparatus according to any one of Claims 1 to 7; and

a printer controller for converting code data inputted thereto from an external device into an image signal and inputting it to said scanning optical apparatus.